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RESEARCH ARTICLE

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Individual Perceptions of Adolescents in Efforts to Prevent Hypertension

Eko Rustamaji Wiyatno^{1(CA)}, Siti Nur Kholifah², Dyah Wijayanti³, Nikmatul Fadilah⁴

^{1(CA)}Nursing Department, Poltekkes Kemenkes Surabaya, Indonesia; ekorustamaji2004@gmail.com

(Corresponding Author)

²Center of Excellence for Community Empowerment in Health, Poltekkes Kemenkes Surabaya, Indonesia;

kholifah@poltekkesdepkes-sby.ac.id

³Nursing Department, Poltekkes Kemenkes Surabaya, Indonesia; dyahwe1@gmail.com

⁴Nursing Department, Poltekkes Kemenkes Surabaya, Indonesia; nikmatulf@poltekkesdepkes-sby.ac.id

ABSTRACT

The unhealthy behavior of adolescents today tend to be more at risk of causing the incidence of non-communicable diseases, including hypertension, e.g. alcohol consumption, smoking, lack physical activity, and poor diet. The unhealthy behaviours very often relate with the negative perception of a healthy lifestyles. The aim of the study was to describe individual perceptions in the prevention of hypertension among adolescents. The study used cross-sectional design. A sample of 210 students was taken from 2nd grade junior high school in Surabaya through multistage sampling. The variable included individual perception in the prevention of hypertension involve the perceived susceptibility and the perception of seriousness. Instrument used was a questionnaire with closed-ended questions. Descriptive analysis was used to represent the individual perceptions in the prevention of hypertension. The perceived susceptibility to hypertension was mostly good (99.5%), and the perception of seriousness of hypertension was half good (51.4%). Adolescents' perceptions can provide an estimate of the prevention of hypertension. One of the factors influencing adolescents' perception of hypertension is related to knowledge. In order to achieve a positive perception in the prevention of hypertension, the support of schools through the program of School Health Unit and collaboration with the Community Health Center through health education is necessary to improve the understanding of the prevention of hypertension in adolescents.

Keywords: individual perception; adolescent; hypertension

INTRODUCTION

Background

The unhealthy behaviors of adolescents today tend to be more at risk of causing the incidence of non-communicable diseases, including hypertension, e.g. smoking, alcohol consumption, poor diet, and lack of physical activity^(1,2). Their poor behaviours very often relate with their negative perception of a healthy lifestyle. The data from National Health Indicator Survey in 2016 showed that the smoking rate for those aged <20 years in Indonesia is 11.1%. The Basic Health Research of the Indonesian Ministry of Health in 2013 and 2018 explained that the proportion of alcohol consumption in the population aged >10 years is 3.3%, an increase of 0.3%. The proportion of excessive alcohol consumption also increased to 0.8%, East Java Province has the same proportion as the national figure. The proportion of less fruit / vegetable consumption in people >5 years old had increased from 93.5% to 95.5%. Both of the data show that the health behaviours of the adolescent are not good, and putting them at risk for non-communicable diseases, including hypertension^(3,4).

The Basic Health Research of the Indonesian Ministry of Health in 2018 explained the prevalence of hypertension in Indonesia based on medical diagnosis, medication use and measurement results in the population over 18 years old is 34.1%, an increase from 25.8%. The prevalence of hypertension in Surabaya city is 18.42%⁽⁵⁾.

Efforts to prevent hypertension in adolescents by changing unhealthy behaviours into healthy ones^(5,6). Healthy behaviours in adolescents are determined by personal beliefs to prevent the occurrence of disease. Perceptions about the disease influence adolescents in prevention^(7,8). Understanding hypertension becomes an important factor in decision-making about the actions to be taken by adolescents⁽⁹⁾.

Adolescents' behaviour based on survey results is a risk for the occurrence of hypertension ⁽⁴⁾. Smoking behaviour, lack of physical activity and a healthy diet are risk factors for hypertension ^(5,10). Adolescent behaviour is influenced by many factors, including adolescent perceptions, psychological variables, self-reaction and introspection. Adolescents' lack of perception of a healthy lifestyle increases the risk of hypertension ^(3,9).

Behaviour change in adolescents is influenced by factors such as knowledge, skills, social/occupational roles, beliefs about skills, optimism, beliefs about consequences, reinforcement intentions, goals, memory, attention and decision-making processes, environmental context and sources, social influences, emotions and regulatory behaviour ⁽¹¹⁾. Environmental support, information and health workers influence adolescent behaviour ⁽¹²⁾. A lack of environmental support also affects the experiences adolescents have. The role of health workers in providing information about healthy lifestyle behaviours affects adolescents' behaviour formation, and a lack of information affects adolescents' perceptions of the perceived threat of hypertension ^(6,9).

Purpose

The aim of the study was to describe individual perceptions in the prevention of hypertension among adolescents in the city of Surabaya.

METHODS

The research design used a cross-sectional design. The population of this research was 2nd grade junior high school in Surabaya. The multistage sampling is used in this study by randomly selecting 1 (one) government junior high school in each area of North, West, East, South and Central Surabaya, thus identifying 5 (five) out of the 52 existing government junior high schools. In the second stage, the number of respondents for each government junior high school is randomly determined 42 respondents.

Retrieval of data used a questionnaire with closed-ended questions. The questionnaire was in the form of a closing statement with a Likert scale of strongly agree, agree, disagree and strongly disagree and always, often, sometimes, never. Before the questionnaire was used, it was tested. Questionnaire trials were conducted with students who meet the criteria but were not selected as respondents. The next step was to test the validity and reliability of the questionnaire. The results of the reliability test of the instrument in this study are all reliable with a value >0.60.

The research process began with licensing, and then asking for approval of respondent. The willing respondent followed by data collection. Data collection was done by interview using a questionnaire. After data collection, a recapitulation and analysis of the variable was carried out. Descriptive analysis was used to explain frequency of the individual perceptions in the prevention of hypertension involve the perceived susceptibility to hypertension and the perception of seriousness of hypertension with 3 categories were less, sufficient, and good.

The results of this analysis are presented in the form of a frequency distribution table. This research has obtained an ethical certificate from the Health Research Ethics Committee of the Surabaya Ministry of Health Poltekkes No. EA/063/KEPK-Poltekkes_Sby/V/2019.

RESULTS

The results of the study on the general data of respondents obtained the following data:

Table 1. Distribution of characteristics of junior high school students in Surabaya City (n=210)

Category	Frequency	Percentage
Gender		
1. Male	74	35.2
2. Female	136	64.8
Ethnic group		
1. Javanese	191	91
2. Outside Java	19	9
History of genogram with hypertension		
1. Have a family history of hypertension	59	28.1
2. Do not have a family history of hypertension	151	71.9
Parent's income (Regional Minimum Wage - IDR)		
1. < 3,871,052.61	171	81.4
2. 3,871,052.61	15	7.2
3. > 3,871,052.61	24	11.4

Table 1 explains that majority of students gender were female (64%), and Javanese ethnics (91%). The majority students were not have a family history of hypertension (71.9%) and parent's incomes were lower than Regional Minimum Wage (71.9%).

Table 2. Distribution of individual perceptions of hypertension prevention in junior high school students in 2019

Indicator	Category	Frequency	Percentage
Perceived vulnerability to hypertension	Less	0	0
	Sufficient	1	0.5
	Good	209	99.5
Perception of the severity of hypertension	Less	0	0
	Sufficient	102	48.6
	Good	108	51.4

Table 2 shows that the individual perception variable, the results of the research on the sub variable perception of vulnerability to hypertension is mostly good (99.5%), and the perception of severity towards hypertension, is mostly good (51.4%).

DISCUSSION

The results show that the sub-variable perception of vulnerability to hypertension is mostly good (99.5%), and the perception of the severity of hypertension is mostly good (51.4%). Perceptions can lead to prejudice among adolescents. Adolescents' perceptions may provide an estimate of the prevention of hypertension. The prejudice resulting from perception can be negative or positive. Perceptions can shape attitudinal patterns in adolescents. If adolescents' perceptions lead to good attitudes towards the prevention of hypertension, then adolescents will make various efforts to prevent the disease ⁽¹³⁾. Positive perceptions have an impact on health behaviour. This behaviour is a conscious decision-making process that involves the individual's judgement. Risky, bad behaviour is engaged in when the individual's deliberations are not accompanied by rational thinking. Risky behaviours performed by adolescents include free smoking, drunk driving or binge drinking.

Behaviour change in adolescents is influenced by factors such as knowledge, skills, social/occupational roles, beliefs about skills, optimism, beliefs about consequences, reinforcement intentions, goals, memory, attention and decision-making processes, environmental context and sources, social influences, emotions and regulatory behaviour ^(11,14). Adolescents' perception of hypertension is related to their knowledge ⁽¹⁵⁾. In terms of knowledge, the teacher in charge of the Program of School Health Unit said that so far the health education program on hypertension had never been given to students by health workers from the Community Health Center. Health education on the dangers of smoking and drugs has been done. There are no posters or other media on the prevention of hypertension in schools. This condition maybe because prevention of non-communicable diseases including hypertension is not included in the 8 program targets of School Health Unit.

The hereditary factor for adolescent is an aspect that innate and has the potential to develop. How far the individual's development occurs and how the quality of its development depends on the quality of heredity and the influencing environment. The research data showed that some adolescents (71.9%) did not have families who suffer from hypertension, so awareness to prevent hypertension is still low.

The previous studies stated that self-development was determined by education, age, gender, ethnicity, race, and the applicable regulatory system ^(16,17). They explained that the female sex had a higher commitment than men. Almost the same habits between male and female students affect their behavior. Among the students who were respondents, their families suffered from hypertension, but this condition did not affect the behavior of the adolescent.

Adolescents' perceptions can provide an assessment of the prevention of hypertension. One of the factors that influence adolescents' perceptions of hypertension is related knowledge ⁽¹⁵⁾. From the findings of the study, it is necessary to support the family and environment in coping and forming positive perceptions in decision making to adopt healthy behaviours to prevent hypertension, such as avoiding smoking, reducing playing games through android and reducing fast food ^(10,14). Educate young people's families and communities about hypertension and how to prevent it. Support to schools through the program of School Health Unit by including hypertension prevention efforts in the program and collaboration with the health department through the Community Health Center in their respective areas of work is also needed to provide health education to improve understanding of hypertension prevention among adolescents.

The limitation of this study is that it only measures one variable, namely the individual perception of adolescents in preventing hypertension. The design used is only to describe of the individual perception of adolescents.

CONCLUSION

In this study, it is found that perceived vulnerability and perceived severity to hypertension are mostly good. The family and social environment play an important role in enhancing adolescents' ability to improve individual perception and self-regulation and to take control to strengthen self-change in adolescents.

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